

PSYCHE.

ON A SINGULAR GLAND POSSESSED BY THE MALE HADENOECUS SUBTERRANEUS.

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The male of this cricket is found at times with a pair of white, fleshy appendages protruding from slits between the terga of the 9th and 10th abdominal somites, the nature of which is not clear, and about which I find nothing written in the literature relating to the species, to which I have access.

The slits through which the organs appear are situated one on each side anterior to and a little within the cerci. When fully protruded the glands are white, cylindrical, a little tapering, and are about 1-8 inch long. They are not protruded by the young, as far as observed, but the slits, which are of rather large size, can be made out in them without difficulty. I believe they are protruded during the period of sexual excitement. A number of examples were taken *in copula* with the lot in which individuals with protruded glands occurred, but unfortunately were not noticed with reference to the glands at the time of collecting. They appear to have no immediate connection with genital organs.

What their function may be can only be conjectured at present. Scent glands somewhat like them have been observed

in some female moths of the family Bombycidae. If the organs are scent glands, however, it is a little strange that they should be borne by the males. I can imagine no other use for them. The sense of smell is certainly the one best calculated to bring the sexes together in the darkness of the caves. Auditory organs such as occur in Locustidae and Acrididae they do not possess, and the tactile sense, though highly developed, is manifestly inadequate to all demands of the peculiar surroundings.

As organs possibly of the same nature, I may mention that Miall and Denny refer to glands of unknown function which are protruded in the pleural region of the abdomen in *Corydia carunculigera*, one of the Blattidae.

Prof. A. S. Packard figures on pl. 17, fig. 3, of his work on cave animals, a male cricket which is said by him to be infested with a parasitic fungus. There is some probability that this supposed fungus is one of these glands.

The figure represents the tip of the abdomen of the male cricket, seen from the side, and with the somites drawn apart more than is natural. 7, 8, 9, somites; *a*, gland, partly protruded; *b*, fully protruded gland.

